ALL-IN-WONDER® X600 Series

Installation and Setup User's Guide

P/N 137-70865-10

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Macrovision

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Documentation Updates

ATI is constantly improving its product and associated documentation. To maximize the value of your ATI product, you should ensure that you have the latest documentation. ATI's documentation contains helpful installation/configuration tips and other valuable feature information.

IMPORTANT SAFETY INSTRUCTIONS

- **Read Instructions** - All the safety and operating instructions should be read before the product is operated.
- **Retain Instructions** - The safety and operating instructions should be retained for future reference.
- **Heed Warnings** - All warnings on the product and the operating instructions should be adhered to.
- **Compatibility** - This option card is for use only with IBM AT or compatible UL Listed personal computers that have Installation Instructions detailing user installation of card cage accessories.
- **Grounding** - For continued protection against risk of electric shock and fire, this accessory should be installed only in products equipped with a three-wire grounding plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace the obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.
- **Secure Attachment** - All card securement pins shall be completely tightened as to provide continuous bonding between the option card and the PC chassis.
- **Outdoor Antenna Grounding** - Since an outdoor antenna or cable system is connected to the product, be sure that the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to the antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection of grounding electrodes, and requirements for the grounding electrode.
- **Lightning** - For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet, and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.
- **Power Lines** - An outside antenna system should not be located in the vicinity of overhead power lines or other light or power circuits, or where it can fall into such power lines or circuits.
- **Antenna Installation** - When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits, as contact with them may be fatal.
- **Note to CATV System Installer** - This reminder is provided to call the CATV systems installer's attention to Section 820-40 of the NEC, which provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

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CHAPTER 1:

Getting Started

Welcome to the convergence of your PC, TV and video! This new technology changes the way you view TV, graphics, and video on your PC. The ALL-IN-WONDER® family of cards are powerful TV tuners, DVD players, Personal Video Recorders, and 2D & 3D graphics and video accelerators. Their features will take your PC's graphics and video capabilities to the next level.

TV-ON-DEMAND™ and TV Listings enhance your television experience. Using an attached video camera, the ALL-IN-WONDER® family provides time-lapse video recording and motion-triggered video recording, which can be used for security applications. Your card's advanced video recording and editing features also give you Video CD and DVD authoring capability.

You can use your ALL-IN-WONDER® to connect your computer to a television. This feature is ideal for playing games, giving presentations, watching movies, and browsing the Internet. (For more information, see *Viewing Your PC's Display on a TV on page 55.*)

ALL-IN-WONDER® also turns your PC into an intelligent TV with the following features:

TV-ON-DEMAND™	**THRUVIEW™**
MULTVIEW™	**TV MAGAZINE**
EAZYLOOK™	**Zoom and Pan**
Scheduled Viewing	**Channel Scanning**
Video Recording	**Closed Captioning with HOTWORDS™**
Program Transcript Recording (North America only)	**Interactive Program Guide (in selected countries)**
Personal Video Recorder with Real-Time Video Compression	**REMOTE WONDER™ USB RF Remote Control (optional)**
AC-3 Digital Audio Playback supporting Dolby® 5.1 surround sound	

System Requirements

Hardware	• Intel® Pentium® 4; AMD Athlon® or compatible. • 128 MB of system memory; 256 MB or more for best performance. • Motherboard with free PCI Express™ slot. • CD-ROM drive (for installation software). • 300 watt or greater power supply recommended. (A 350 watt power supply may be required in some fully loaded PC systems.)
Operating System	• Windows® XP Service Pack 1 and Service Pack 2. • Windows® XP • Windows® 2000 with Service Pack 1 (or later).
Monitor	• High-resolution MultiSync or multi-frequency monitors or any other type of VGA monitor. • Digital flat-panel (DFP) displays or digital CRT display.

Before You Begin

Before you begin installing your ALL-IN-WONDER® X600 Series product, please do the following.

Record Your Serial and Part Numbers

The serial number and 102 part number printed on the graphics card are required for registration. They are located on a sticker on the back of the card.

1	Serial number (S/N)
2	102 part number (P/N)

Write these numbers down before installing your new ATI product.

Uninstall Previous Graphics Card Drivers

To ensure the successful installation of your new ALL-IN-WONDER® X600 Series card, you must uninstall the drivers for the existing graphics card before removing it from your computer.

To uninstall previous drivers

With your current graphics card still in your computer:

1. Close all applications that are currently running.
2. Navigate to the **Control Panel** and select **Add/Remove Programs.**
3. Select your current graphics card drivers and select **Add/Remove.** The wizard will help you remove your current display drivers.

   Note: If the previously installed graphics card has any additional software installed, it should also be removed at this point.

4. Restart your system after the drivers have been removed.

Available Resources

This chapter tells you where to find your user's guide, where to get additional accessories, how to register your product, and warranty and compliance information.

Using the Digital User's Guide

Your ATI graphics card comes complete with a User's Guide in Portable Document Format (PDF). The User's Guide describes in detail the features and functions of your ATI graphics card and the associated software. You will need Adobe® Reader® software, available from **www.adobe.com**.

To open the User's Guide

1. Insert the ATI Installation CD-ROM into your CD-ROM drive.
2. If Windows® runs the CD-ROM automatically, proceed to step 6.
3. Click **Start** > **Run**.
4. Type the following: `D:\ATISETUP`
   (If `D` is not your CD-ROM drive, substitute the correct drive letter.)
5. Click **OK**.
6. Click **Documentation**.
7. Click **User Guides**.

Getting Additional Accessories

Additional and replacement cables, installation CD-ROMs, manuals, and other accessories for ATI products can be purchased from the online ATI store at **ati.com/online/accessories.**

Product Registration

To receive Customer Service you must register your product with ATI within 30 days of purchase. An Online Product Warranty Registration form is available at:

ati.com/online/registration

Customer Care

For detailed instructions on how to use your ATI product, refer to the Online User's Guide included on your ATI installation CD-ROM.

If you require further assistance with your product, the following Customer Care options are available:

Service	Availability	Access	Cost
Online	24/7 ati.com/online/customercare.		Complimentary
Telephone US & Canada	9:00am-7:00PM EST. Monday to Friday.	1-905-882-2626	Complimentary to registered users. Toll charges may apply.
Telephone US & Canada Priority Service	9:00am-7:00PM EST. Monday to Friday.	1-900-733-2841	$1.25 perminute (subject to change without notice).
Telephone US & Canada Priority Pay-Per-Incident	9:00am-7:00PM EST. Monday to Friday.	1-877-284-7379	$19.95 per incident (subject to change without notice).
Europe and Other Regions	10:30am - 7:00 PM GMT Monday to Friday.	+49-1803-347345	Complimentary to registered users else US$19.95 per incident (subject to change without notice). Toll charges to Germany may apply.
Mail		ATI TECHNOLOGIES INC. Attention: Customer Care 1 Commerce Valley Drive East Markham, Ontario Canada L3T 7X6	Complimentary

ATI Customer Care will work to resolve your issue and help you to get your ATI product up and running. If your issue is not resolved, our technicians will determine whether the difficulty you are experiencing is the result of the ATI product, whether your product contains a defect, and whether your product is under warranty.

- ATI Customer Care is unable to assist with refunds, returns, or exchange specific inquiries. If resolving the problem being experienced is critical to your decision to keep the product, it is your responsibility to ensure that you know and are within the period of time your reseller will allow for refunds, returns or exchange.
- ATI is not responsible for any expense incurred accessing Customer Care. It is expected that customers will review the expense associated with the available support options and will choose the method that best meets their needs and budget.
- ATI Customer Care reserves the right to limit support options for products that are not registered or are at End of Life.

Warranty Information

Hardware Warranty Service Statement

ATI Technologies Inc. warrants to the original purchaser of the hardware that the product is in good working condition, according to its specifications at the time of shipment, for a period of three years from the date of original purchase.

Should the product, in ATI's opinion, malfunction within the warranty period, ATI will, at its discretion, repair or replace the product upon receipt with an equivalent. Any replaced parts become the property of ATI. This warranty does not apply to the software component of the installation, usage not in accordance with product specifications and instructions, natural or personal disaster, or unauthorized alterations, repairs, or modifications.

Proof of purchase may be required, if doubt exists regarding warranty eligibility. Late model products are assumed to be under warranty. ATI accepts ordinals, photocopies and faxes as proof of purchase when required

Warranty Service

For warranty service instructions visit:

ati.com/online/warranty or contact one of our Customer Service Representatives using one of the aforementioned means.

- Before shipping any unit for repair, obtain an RMA number for warranty service.
- When shipping your product, pack it securely, show the RMA and serial number of the product on the outside, and ship prepaid and insured.
- ATI will not be held liable for damage or loss to the product in shipment.
- Standard warranty service consists of repair upon receipt.
- ATI reserves the right to replace the product with a serviced product at their sole discretion at any time.

- You are responsible for the cost of shipping the product to ATI. ATI plays the cost of returning the product to you.

Products which are repaired under warranty are guaranteed for the remainder of the original warranty period. Repairing or exchanging a product does not start a new warranty period. If, at the time of repair, a product is already “out of warranty” or within the last 90 days of the warranty period, ATI will guarantee the repair for the full 90 days. All other terms and conditions of the original warranty apply.

Limitations

- This warranty is valid only if the online Product Warranty Registration form at:
  ati.com/online/registration
  is successfully submitted within 30 days of purchase of said product.
- All warranties for this product, expressed or implied, will expire three (3) years* from date of original purchase.
- *The REMOTE WONDER™ unit is warranted for 1 year.
  The HDTVCOMPONENT ADAPTER is warranted for 1 year.
  All accompanying cables and accessories are warranted for 90 days.
- No warranties for this product, expressed or implied, shall extend to any person who purchases the product in a used condition.
- The liability of ATI in respect of any defective product will be limited to the repair or replacement of such product. ATI may use new or equivalent-to-new replacement parts. Defective product will be sent in for repair or replacement only. ATI makes no other representations or warranties as to fitness for a particular purpose, merchantability or otherwise in respect of the product. No other representations, warranties or conditions, shall be implied by statute or otherwise. In no event shall ATI be responsible or liable for any damages, including but not limited to the loss of revenue or profit, arising:
- From the use of the product, as a result of any event, circumstance, action or abuse beyond the control of ATI; whether such damages be direct, indirect, consequential, special or otherwise and whether such damages are incurred by the person to whom this warranty extends or a third party
- From the loss of use of the product, as a result of any event, circumstance, action or abuse beyond the control of ATI; whether such damages be direct, indirect, consequential, special or otherwise and whether such damages are incurred by the person to whom this warranty extends or a third party.
- Unauthorized repairs to an ATI board level product will void the warranty offered by ATI Technologies. ATI reserves the rightto refuse to service any product which has been altered, modified, or repaired by non-ATI service presonnel.

Compliance Information

FCC Compliance Information

This ALL-IN-WONDER® product complies with FCC Rules part 15. Operation is subject to the following two conditions

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with manufacturer's instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The use of shielded cables for connection of the monitor to the graphics card is required to ensure compliance with FCC regulations. Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Industry Canada Compliance Statement

ICES-003 This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la Classe B est conforme à la norme NMB-003 du Canada.

For further compliance information:

ATI Research Inc.
4 Mount Royal Ave.
Marlborough, MA
01752-1976
USA
508-303-3900

CE Compliance Information

EMC Directive 89/336/EEC and Amendments 92/31/EEC and 93/68/EEC, for Class B Digital Device.

EN 55022:1998/CISPR 22:1997, - Class B - Limits and Methods of Measurement of Radio Disturbance Characteristics of Information Technology Equipment.

EN55024:1998/CISPR 22:1997, - Information Technology Equipment - Immunity Characteristics - Limits and Methods of Measurement.

Low Voltage Directive for TV-Tuner-Equipped products

73/23/EEC - The Low Voltage Directive.

EN 60950: 1992+A1+A2+A3+A4 - Safety of Information Technology Equipment.

L'Information de conformité de la CE

Directive EMC 89/336/CEE et amendement 92/31/CEE et 93/68/EEC, dispositif numérique de Classe B.

EN 55022:1998/CISPR 22:1997, - Class B - Limites et méthodes de mesure des caractéristiques d'interférences radiophoniques, Matériel des technologies de l'information.

EN 55024:1998/CISPR 24:1997, Limites et méthodes de mesure des caractéristiques d'immunité, Matériel des technologies de l'information Equipement de Technologie de l'Information - Caractéristiques d'Immunité - Limites et méthodes de mesure.

Directive de Basse Tension pour produits contenir tuner de télévision

73/23/CEE - Directive basse tension.

EN 60950 : 1992+A1+A2+A3+A4 - Sécurité du matériel des technologies de l'information.

CE-befolgungInformationen

EMC Richtlinie 89/336/EEC und Änderungen 92/31/EEC und 93/68/EEC, Digitales Gerät der Klasse B.

EN 55022:1998/CISPR 22:1997, - Klasse B - Grenzwerte und Meßverfahren für Funkstörungen von Einrichtungen der Informationstechnik.

EN 55024:1998/CISPR 24:1997, Einrichtungen der Informationstechnik, Störfestigkeitseigenschaften, Grenzwerte und Prüfverfahren.

Niederspannung Richtlinie für Produkte Enthalten Fernsehen tuner

73/23/EEC - Niederspannungsrichtlinie.

EN 60950: 1992+A1+A2+A3+A4 - Sicherheit für Einrichtungen der Informationstechnik.

CHAPTER 2

Installing Hardware

This chapter will guide you through the physical installation of your ALL-IN-WONDER® X600 Series card.

Quick Installation

Experienced users and system administrators can follow these brief instructions for installing the ALL-IN-WONDER® X600 Series card in the shortest possible time.

To perform a quick installation

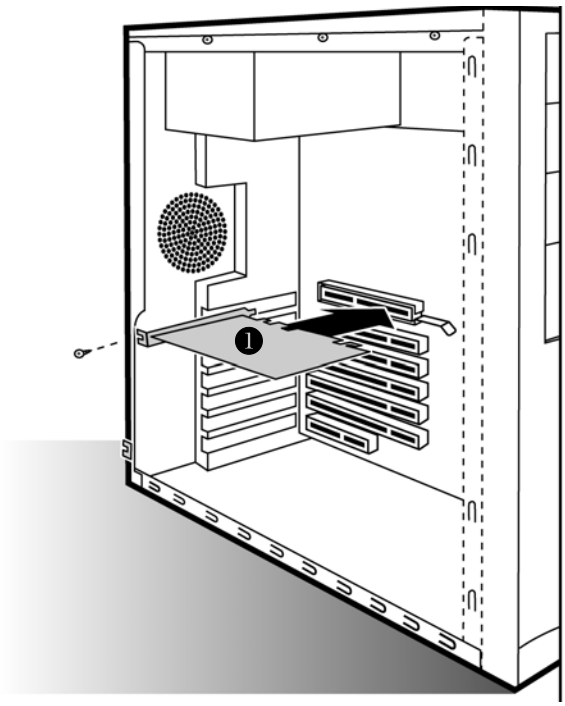
1. Uninstall the drivers and software for your old graphics card if you have not already done so.

   Note: If you are using a motherboard containing an on-board graphics solution and do not intend to use it as part of a multiple monitor display, disable it.

2. Shut down and disconnect your computer system.
3. Remove any previously installed card.
4. Install your new ALL-IN-WONDER® X600 Series card.
5. Reassemble and connect your computer system.
6. Install the ALL-IN-WONDER® X600 Series drivers and configuration software from the ATI Installation CD-ROM by doing one of the following:
   - Run through the automatic **ATISETUP** utility; or
   - **Start > Run > X:\ATISETUP.EXE** (where **X** is the drive letter of your CD-ROM drive).

Detailed Installation

The following instructions will take you step by step through the installation of your new ALL-IN-WONDER® X600 Series graphics card.



1 ALL-IN-WONDER® X600 Series Graphics Card

Installing the Card

1. Turn off the computer, monitor, and other peripheral devices.
2. Unplug the computer's power cord and disconnect all cables from the back of your computer.

> **WARNING** - Wait approximately 20 seconds after unplugging the power cord before disconnecting a peripheral or removing a component from the motherboard to avoid possible damage to the motherboard.

3. Remove the computer cover.

   If necessary, consult your computer's manual for help in removing the cover.

WARNING - Remember to discharge your body's static electricity by touching the power supply or the metal surface of the computer chassis.

4 Unscrew or unfasten and remove any existing graphics card from your computer.

Note: If your computer has an on-board graphics capability, you may need to disable it on the motherboard. For more information, see your computer documentation.

5 Locate the appropriate slot and, if necessary, remove the metal back-plate cover.

6 Align your ATI graphics card with the slot and press it in firmly until the card is fully seated.

7 Screw in or fasten the graphics card securely. Make sure the cables are not interfering with anything inside the computer (for example, a cooling fan) and replace the computer cover.

8 Reconnect any cables you have disconnected and plug in the computer's power cord.

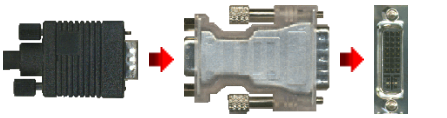
Note: Before turning your computer on again, connect the appropriate display devices.

Connecting Display Devices

The following connections are available:

- VGA — for standard VGA monitors
- DVI-I — for digital flat-panel displays

You can connect an analog CRT display using an optional DVI-I-to-VGA adapter, as shown below.



Turning on the System

> **WARNING** - Turn on your monitor before you turn on your computer. Failure to do so could damage your monitor.

If you have properly installed your graphics card, operating system messages will appear once the boot procedure is finished.

Your monitor will be running in a basic video mode. Higher refresh rates are not available at this stage of the installation. Once you have installed the ALL-IN-WONDER® X600 Series drivers and software you can use the Display Properties dialog to adjust the video settings and configure multiple monitors.

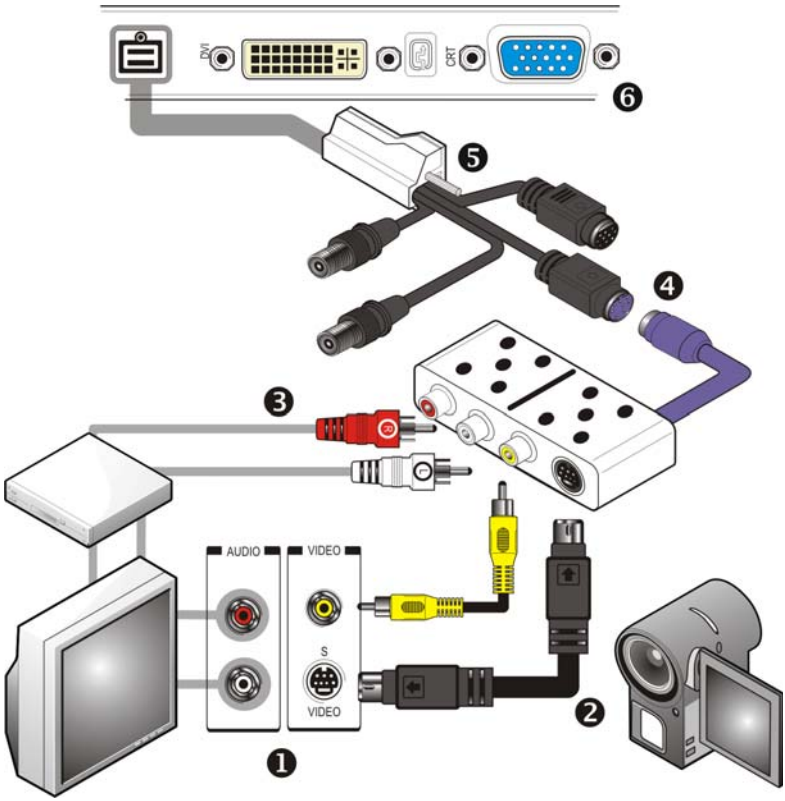
Input and Output Adapters

Your ALL-IN-WONDER® X600 Series uses input and output adapters that let you connect audio and video devices to the card (for example, TV, VCR, or camcorder).

> To hear sound when you use your ALL-IN-WONDER® X600 Series card's TV feature, ensure that the ALL-IN-WONDER® card's audio output cable is connected to your sound card's **line-in** connector.

To watch movies on your PC or record video from your VCR or camcorder

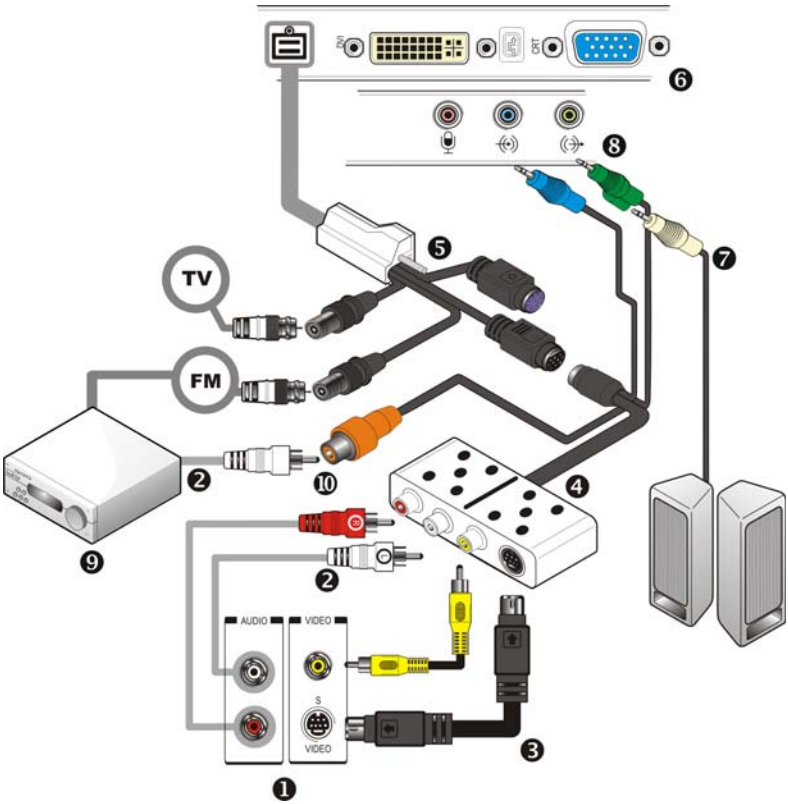
Use the ATI input adapter to connect a VCR or camcorder to your ALL-IN-WONDER® X600 Series card, as shown.



1	Typical VCR or camcorder audio and video output connectors. Use composite video out **or** S-Video out. S-Video will provide better results.
2	Cable with S-Video plug at each end.
3	Cables with RCA plug at each end, available separately from a consumer electronics dealer.
4	ATI Input Adapter. You can snap the adapters together for convenient placement and use.
5	Input / Output connector.
6	ALL-IN-WONDER® X600 Series card.

To display your PC output on TV and record PC output on videotape

Use the ATI output adapter to connect a TV, camcorder, or VCR to your ALL-IN-WONDER® X600 Series card, as shown.

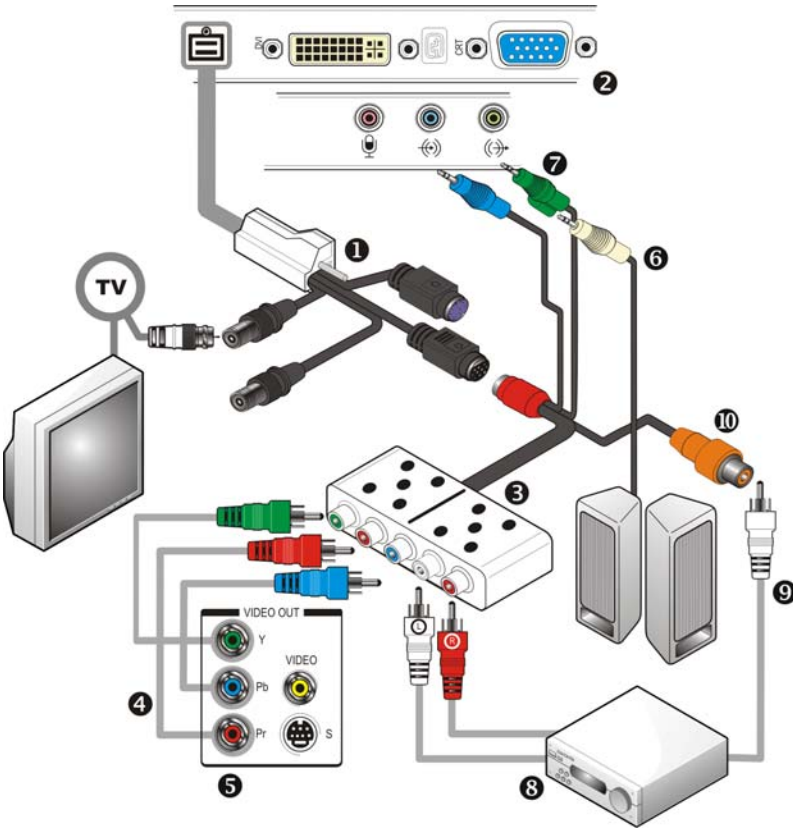


❶	Typical VCR or camcorder audio and video input connectors. Use composite video in **or** S-Video in; S-Video will provide better results. To use your TV as a display, you must enable TV Out (see *Using TV Out on page 55*.
❷	Cables with RCA plug at each end, available separately from a consumer electronics dealer.
❸	Cable with S-Video plug at each end.
❹	ATI Output Adapter. You can snap the adapters together for convenient placement and use.

❺	Input / Output connector
❻	ALL-IN-WONDER® X600 Series card.
❼	PC speaker connection (optional).
❽	Line-In to sound card.
❾	Dolby® Digital AC-3 Amplifier.
❿	S/PDIF connection.
TV	Cable TV connection.
FM	Cable FM Radio connection.

To display your PC output on a high-definition TV

Use the optional ATI output adapter to connect a high definition TV to your ALL-IN-WONDER® X600 Series card, as shown.

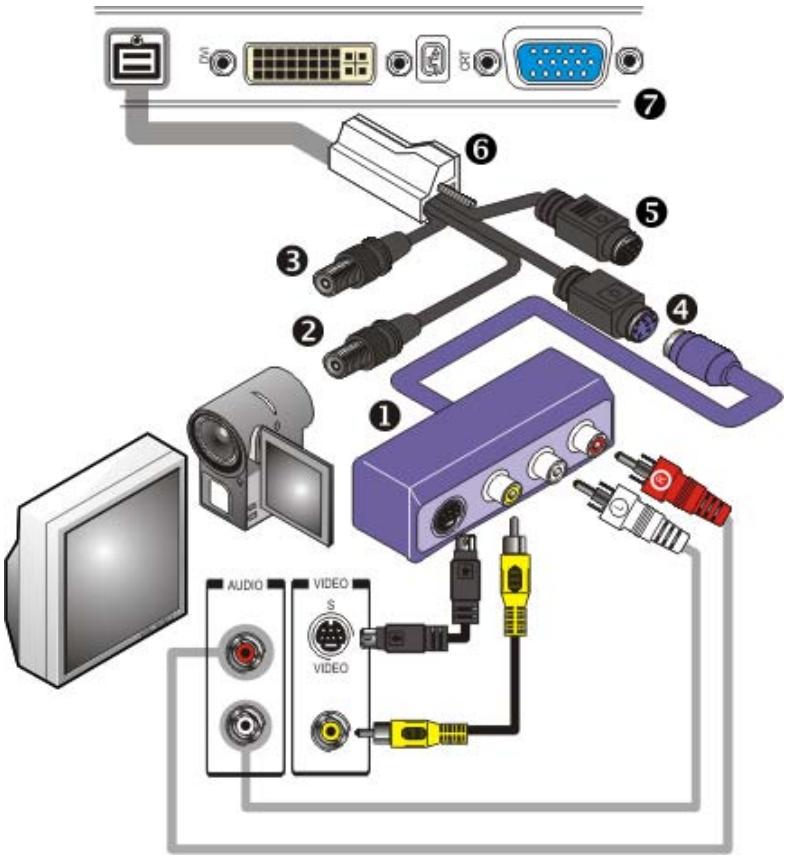


1	Input / Output Adapter.
2	ALL-IN-WONDER® X600 Series card.
3	Optional ATI HD Output Adapter.
4	Cables with RCA plug at each end, available separately from a consumer electronics dealer.

❺	Typical HDTV video inputs. **Note**: Input and output cable lengths should not exceed 50 feet (15m). Y = Green Pb = Blue Pr = Red
❻	Cable with mini-stereo plug at each end, available separately from a consumer electronics dealer, for connecting PC speakers (optional).
❼	LINE IN to sound card.
❽	Dolby® Digital AC-3 Amplifier.
❾	Cable with RCA plug at each end, available separately from a consumer electronics dealer.
❿	S/PDIF connection.

Compatibility with earlier ALL-IN-WONDER® products

If you have input and output devices connected to an earlier ALL-IN-WONDER® product, the input/output adapter included with your ALL-IN-WONDER® X600 Series card lets you easily re-attach those devices.



❶	ATI Input Adapter used with earlier ALL-IN-WONDER® products.
❷	**TV** F-connector for cable TV input.
❸	**FM** F-connector for cable FM radio input.
❹	Input connector.
❺	ATI Output adapter used with earlier ALL-IN-WONDER® products.

❻	Input / Output connector.
❼	ALL-IN-WONDER® X600 Series card.

CHAPTER 3:

Installing Software

This chapter will guide you through the installation of the drivers and software associated with your ALL-IN-WONDER® X600 Series card.

Installing Drivers and Software in Windows®

You will need to install the ALL-IN-WONDER® X600 Series drivers and software in the following cases:

- After you have installed the card in your system.
- After you have reinstalled or upgraded your operating system.

This procedure applies to Windows® 2000 and Windows® XP.

Software Installation Prerequisites

To install or remove the drivers, you must have administrator rights or be logged on as a user with administrator rights.

Your operating system must be installed and running before you can install the ALL-IN-WONDER® X600 Series drivers. You must also have Service Pack 1 (or higher) for Windows® 2000 or Windows® XP installed.

Make sure your monitor cable is properly attached before you begin.

> **Note:** The installation dialog will display in English if your operating system's language is not supported.

To install ATI drivers and software

1. Start your system. When the **Found New Hardware Wizard** comes up, click **Cancel**. When the **System Settings Change** window asks you to restart your computer, click **No**.
2. Run the **ATISETUP** utility. The **ATISETUP** utility will start automatically if you insert the ATI Installation CD-ROM into your CD-ROM drive after the operating system has started. If your CD-ROM auto-run is not enabled or the **ATISETUP** utility does not start automatically:

a) Click the **Start** button in the task bar.
b) Click **Run**.
c) Select **ATISETUP.EXE** from the root directory of the ATI Installation CD-ROM.
d) Click **OK**.

3 Click **Install** under Software Install.

4 Click **Next**.

5 Click **Yes** to the license agreement. ATI Easy Install will start the Installation Wizard.

6 Follow the wizard's on-screen instructions to complete the installation.

Note: The **Express** installation option is recommended. The HYDRAVISION™ multi-monitor and desktop management software will automatically be installed, along with the ATI driver, by selecting this option. Not all software components are installed using the **Express** installation. **Custom** installation allows you to select individual software components for installation.

7 When the **Setup complete** message appears, select **Yes, I want to restart my computer now** and click **Finish**.

8 After the system reboots, the **Found New Hardware** message may display the **Digital Signature Not Found** message. Click **Yes** or **Continue** to complete the driver installation.

HYDRAVISION™ Multi-monitor Management

The HYDRAVISION™ multi-monitor and desktop management software will install automatically with the Express driver installation of the ATISETUP utility. If you do not want to install HYDRAVISION™ , select the **Custom** driver installation and clear the **HYDRAVISION™** check box.

For more information concerning HYDRAVISION™ , consult the user's guide included on the ATI Installation CD-ROM.

Monitor Configuration

Once the drivers and software have been installed, you can configure your monitor.

To configure your primary display

1. Navigate to the Control Panel and choose **Display** or right-click on the desktop and choose **Properties**.
2. Choose the **Settings** tab and select a screen resolution and color depth that best suit your requirements and your monitor's performance.
3. Click the **Advanced** button and select the **Monitor** tab.
4. Choose a refresh rate from the drop-down list.

> ⓘ **WARNING** - Choosing a refresh rate unsupported by your monitor may damage your monitor. Consult your monitor's documentation if necessary.

5. Click **OK** until you return to the desktop.

Reinstalling Drivers

The software installation procedure detailed in this chapter describes how to install the drivers for your graphics card after you have installed a new card for the first time and have rebooted your computer.

If you are installing the graphics card drivers in a special working scenario, such as if you have reinstalled your operating system or want to perform a manual reinstallation.

To reinstall drivers using the ATISETUP utility

You can always install the drivers using the **ATISETUP** utility on the ATI Installation CD-ROM. The **ATISETUP** utility will start automatically if you insert the ATI Installation CD-ROM into your CD-ROM drive after the operating system has started. If your CD-ROM auto-run is not enabled or the **ATISETUP** utility does not start automatically, perform the following actions:

1. Click the **Start** button in the task bar.
2. Select **Run.**

3 **Browse** to ATISETUP.EXE on the root directory of the ATI Installation CD-ROM and click **OK.**

To manually reinstall drivers

To manually reinstall drivers, when prompted for a driver installation CD, insert the ATI Installation CD-ROM and browse to the **drivers** subdirectory**.**

Starting the ATI Multimedia Center

From LaunchPad

The LaunchPad provides a convenient way to start all your Multimedia Center features — just click the one you want. LaunchPad opens automatically when you start your computer, or if you prefer, you can right-click LaunchPad, and uncheck **Load on Startup** in the drop-down menu to disable this feature.

From Windows® taskbar

1 In the Windows® taskbar, click **Start**, and then point at **Programs**.

2 Point at **ATI Multimedia Center**, and then select the feature you want to run.

For information on the ATI Multimedia Center, see the User's Guide and the online help.

ⓘ The first time you launch TV, you must complete the Initialization Wizard, which guides you through setting up TV. After that, the Wizard will not run unless you want to re-run it.

CHAPTER 4:

ATI's CATALYST™ Software Suite

Introduction

This chapter describes using the advanced multiple-monitor and 3D graphics features in ATI's CATALYST™ Software Suite.

The ATI REMOTE WONDER™ software is automatically installed with the CATALYST™ Software Suite. See the *ATI* REMOTE WONDER™ *Installation Guide* for installation instructions.

Features

Multiple Displays and 3D Gaming

ATI's CATALYST™ Software Suite provides multiple-display functionality, and its advanced graphic features, such as SMARTSHADER™ HD, provide the ultimate 3D gaming experience.

The CATALYST™ Software Suite also supports the latest versions of Direct 3D® and OpenGL®. Many 3D game titles will virtually come to life through the advanced Direct 3D® or OpenGL® features. Gamers can fine-tune these settings for the ultimate experience in 3D image quality or 3D gaming performance.

HYDRAVISION™

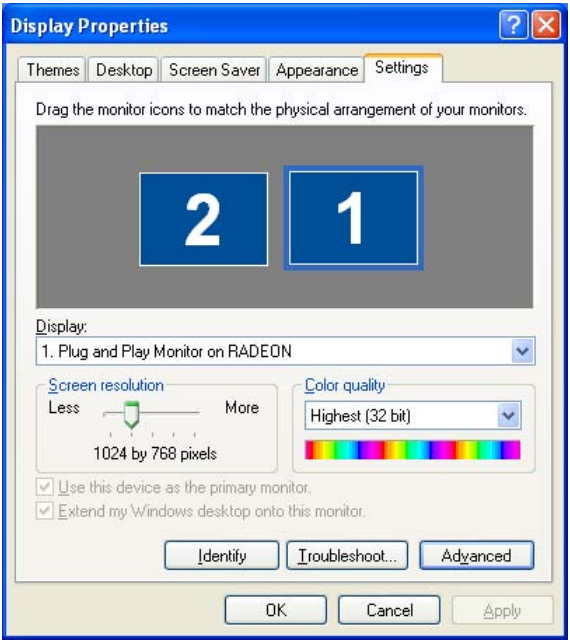
In addition to the multiple display functionality available with ATI's CATALYST™ Software Suite, you can also use HYDRAVISION™ for advanced multi-monitor management. For more information on HYDRAVISION™ , please refer to the **HYDRAVISION™ User's Guide** PDF located on your ATI Installation CD.

Accessing the CATALYST™ Software Suite

For help installing the CATALYST™ Software Suite, refer to the **Getting Started Guide**.

The CATALYST™ Software Suite installs the ATI display tabs into the Windows® **Display Properties** dialog. They are accessed through the **Advanced** button located on the **Settings** tab.

To access the **Display Properties** dialog, right-click on the desktop or navigate through Windows® **Control Panel**, which is located in the **Start** menu.



Windows® Display Properties Settings Tab

ATI Displays Tab

The ATI Displays tab provides control over multiple-monitor features. Here you can enable/disable display devices and swap the assignment of **Primary** and **Secondary** displays.

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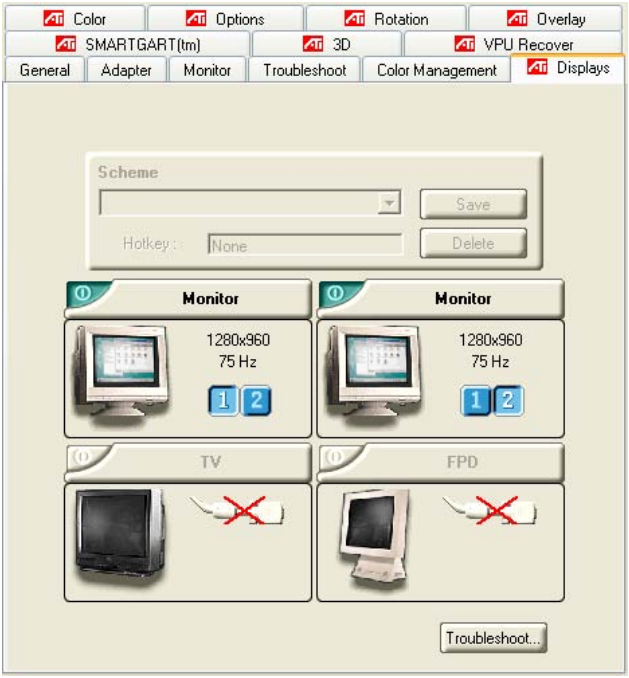


ATI Displays Tab

ATI Displays Tab	
Scheme	Displays the drop-down list of available display-device configurations that have previously been created. New configurations can be entered here and then saved using the **Save** button.
Hotkey	Associates a hotkey with a scheme. To input the hotkey, highlight the field and press the appropriate key combination on your keyboard.
Save button	Saves display-device configuration schemes.
Delete button	Deletes display-device configuration schemes.
Display buttons	Enables or disables a display device; they also indicate whether a device is enabled or disabled.

ATI Displays Tab	
Troubleshoot button	Opens a Troubleshoot dialog to assist with possible display problems.

To enable or disable a display

If the enable/disable button is green, it indicates the device is enabled. If it is red, it indicates the device is disabled. If the button is greyed out, the device is not an option. For example, if there is only one monitor connected, all buttons will be grey.

1. Click the enable/disable button for the display device you want to enable/disable.
2. Click **OK** or **Apply** to save the changes.

Note: Due to power restrictions, you can normally only have two devices active at the same time; for example, two monitors or a monitor and a TV.

To save a display-device scheme

Display-device selections can be saved as a scheme for quick recall.

1. Click the enable/disable button for the display devices you want to have active.
2. Type a name into the **Scheme** drop-down list field.
3. Click **Save** to save the scheme.

Dynamic Display Reassignment

You can change the assignment of your Primary and Secondary display on the fly, without rebooting.

Note: Before you can change the assignment of the Primary display, at least one Secondary display and the Extended Desktop mode must be enabled. Extended Desktop mode is enabled through the Windows® **Display Property** dialog, under **Settings**. For more information, consult your Windows® documentation**.**

To assign your Primary monitor

1. Click the buttons to assign the Primary monitor:

For Windows® XP

- The ATI Displays tab shows you the display(s) that are active. The Primary display has the button depressed. To change the display assignment, click the Primary display's button or click the button of the other display device.

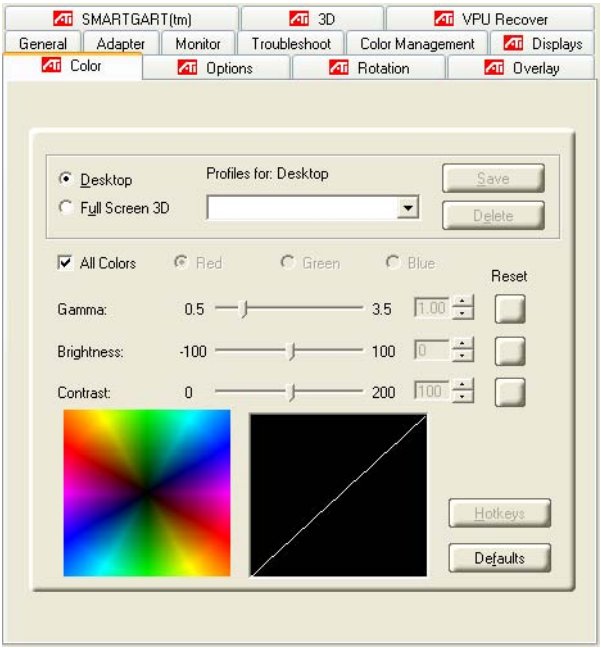
For Windows® 2000

- Clicking the button will reassign the Primary and Secondary monitors. Clicking the button creates a clone or mirror image of the Primary display onto the Secondary display. Clicking the button extends your desktop to a Secondary display located to the right of the Primary display. Clicking the button extends your desktop to a Secondary display located below the Primary display.

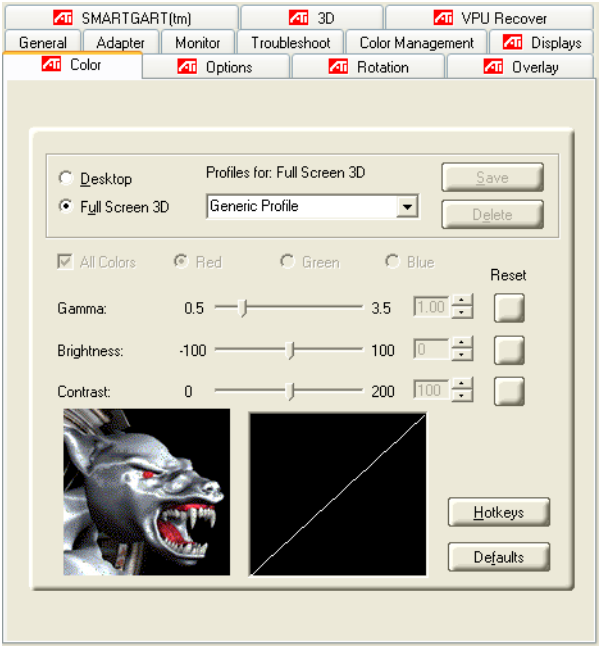
2 Click **OK** or **Apply** to save the changes.

ATI Color Tab

The ATI Color tab allows you to configure Gamma, Brightness, and Contrast color settings for both your desktop and full screen 3D environments. You can also save settings to a color profile for easy recall. In addition, you can assign unique hotkey combinations that allow you to adjust Gamma, Brightness, and Contrast color settings within your full screen 3D applications.



ATI Color Tab: Desktop Settings



ATI Color Tab: Full Screen 3D Settings

ATI Color Tab	
Desktop radio button	Select **Desktop** to configure your desktop color settings.
Full Screen 3D radio button	Select **Full Screen 3D** to configure the color settings for your 3D application. Note that the configured settings will only be apparent within a full screen 3D application environment.
Profiles for	Indicates whether the profiles in the drop-down list are for your Desktop or a Full Screen 3D environment.
Profiles drop-down list	Lists all of the Desktop or Full Screen 3D profiles that you have saved. Selecting a profile from the list loads those custom color settings for the relevant environment. To create a new profile, simply type in a name and click **Save**.

ATI Color Tab	
Save button	Saves your current color settings to a Desktop or Full Screen 3D profile, using the name you specified in the list box. To restore these settings later, simply select the Profile name from the list and click **Apply** or **OK**.
Delete button	Deletes the profile that is selected in the Profiles list box.
All Colors checkbox	Adjusts the Gamma, Brightness or Contrast for Red, Green, and Blue simultaneously. Note that any individual color settings in effect are lost if **All Colors** is selected; the color settings revert back to the last-known All Colors settings.
Red, Green, and Blue radio buttons	Selects the active color component (Red, Green, or Blue) whose values will be adjusted by the Gamma, Brightness, and Contrast sliders. Note that any individual color settings made are lost if you subsequently select **All Colors**.
Gamma slider	Increases or decreases the gamma correction of your Desktop or full screen 3D application. Changing the gamma alters the curvature of the color curve.
Brightness slider	Increases or decreases the color brightness of your Desktop or full screen 3D application. Changing the brightness adjusts the vertical position of the color curve.
Contrast slider	Increases or decreases the color contrast of your Desktop or full screen 3D application. Changing the contrast adjusts the slope of the color curve.
Reset buttons	Restores an individual slider setting to its default value. Click **Apply** or **OK** to save.
Color preview box	The color image indicates visually how the Gamma, Brightness and Contrast sliders affect the final color settings of your display device. In Desktop mode, clicking on this with your mouse pointer will change the image.
Hotkeys button	Opens the **Color Hotkeys Settings** dialog. There you can assign hotkeys for adjusting your color settings within a full screen 3D application environment. To activate this button, you must select the **Full Screen 3D** radio button.
Defaults button	Restores all of the color settings to the default values. Click **Apply** or **OK** to save.

To create a Desktop or Full Screen 3D profile

1 Choose either the **Desktop** or **Full Screen 3D** radio button, as desired.

2 Adjust the **Gamma**, **Brightness**, and **Contrast** sliders to the desired settings, either individually or using the **All Colors** checkbox.

3 Type a profile name in the Profile list box.

4 Click **Save**.

To apply the settings for a specific Desktop profile

1 Choose the **Desktop** radio button.

2 Select the profile name from the drop-down list box.

3 Click **Apply** or **OK**.

To apply the settings for a Full Screen 3D profile

1 Choose the **Full Screen 3D** radio button.

2 Select the profile name from the drop-down list box.

3 Click **Apply** or **OK**.

4 Start your 3D application in full-screen mode.

Hotkeys

Some 3D applications automatically load their own color settings rather than those set through the ATI Color tab. To use custom settings, you can preconfigure hotkey combinations to either adjust the individual color properties or apply profiles you have created, once the 3D application is running.

To access the Color Hotkeys Settings dialog

1 Select the **Full Screen 3D** radio button.

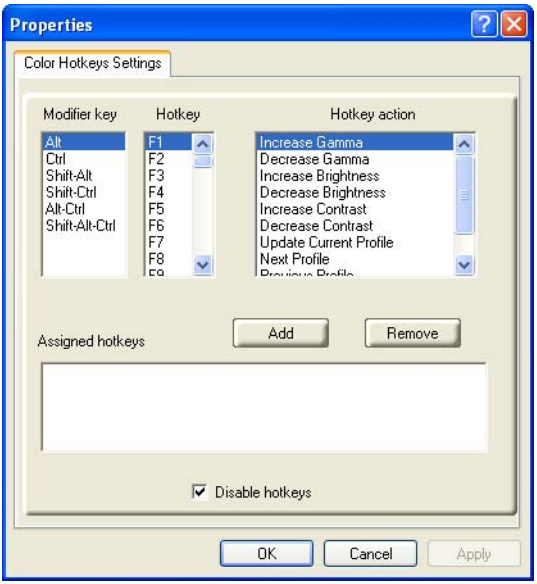
2 Click the **Hotkeys** button to access the Color Hotkeys Settings dialog.

The easiest way to apply your own color settings from within a full screen 3D application is to create a Full Screen 3D profile and save it, assign hotkeys for the “Load Current Profile” action through the Hotkeys dialog, make sure that the profile you prefer is selected from the drop-down list box, and click **OK**. Once inside the 3D application, use the hotkeys to trigger the profile.

Some 3D applications allow you to switch easily between full-screen mode and windowed mode, and do not load their own color settings. In windowed mode, you can make slider adjustments or select a different profile on the Color tab, then switch back to full-screen mode to see the effects immediately.

Color Hotkeys Settings

Some full screen 3D applications automatically load their own color settings rather than those set through the ATI Color tab. If you want to force the application to use your custom settings, you can preconfigure hotkey combinations to either adjust the individual color properties or apply profiles you have created from within the 3D application. This control is accomplished through the Color Hotkeys Settings dialog of the Color properties tab.



Color Hotkeys Settings Dialog

Color Hotkey Settings	
Modifier key	In combination with the **Hotkey**, specifies the hotkey combination that triggers an action. The **Modifier key** can be any combination of Alt, Ctrl, or Shift. Note that the Shift key is never used alone.
Hotkey	In combination with the **Modifier key**, specifies the hotkey combination that triggers an action. **Hotkey** can be any key listed. To avoid conflicts, be aware of any hotkeys or keyboard controls that may already be assigned to your applications and 3D games.
Hotkey action	Specifies the action that the assigned hotkey combinations will control within a full screen 3D application environment. You can only assign one hotkey combination to each action.
Assigned hotkeys	Lists the assigned hotkey combinations and the actions that each one controls.
Add button	Adds a hotkey combination to the assigned list.
Remove button	Removes a hotkey combination from the assigned list.
Disable hotkeys checkbox	Disables all hotkeys. To disable a single hotkey combination, remove it from the assigned list.

To assign color settings hotkeys for full screen 3D applications

1. Select a modifier key from the **Modifier Key** list.
2. Select a hotkey from the **Hotkey** list.
3. Select the action you want from the **Hotkey Action** list.
4. Click **Add** to create the hotkey combination. This combination will appear in the Assigned Hotkeys text box. Only one hotkey combination can be assigned to each action; if you assign a new combination for an action, it will overwrite an existing one.

   Note: When assigning hotkeys, be careful that the key combinations you choose do not conflict with those of other applications in which you might want to use them. The ATI Color properties page only checks for duplications within the Color page itself, insofar as it allows a hotkey combination to be assigned only once.

To remove assigned hotkeys

1. Select a hotkey combination from the Assigned Hotkey text box.
2. Click **Remove**.

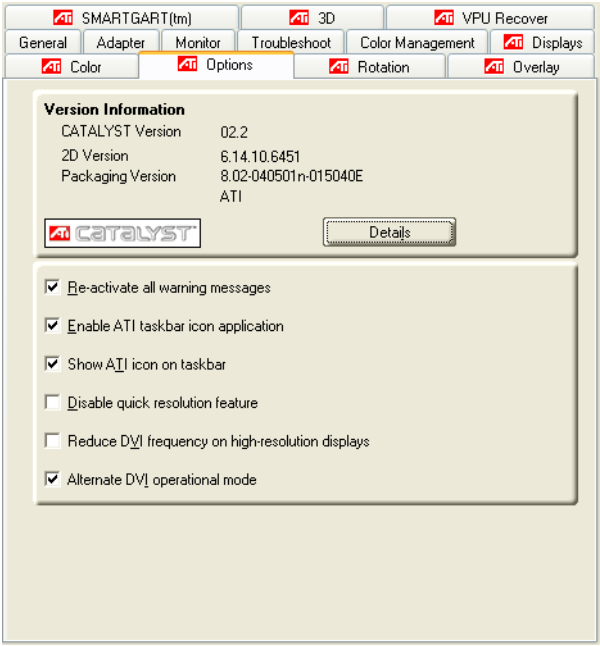
   Note: Assigning a new combination to an action with an existing combination will overwrite the existing one.

To disable hotkeys (so that you do not accidentally activate them, for example), click the **Disable Hotkeys** checkbox. If you plan to use hotkeys, make sure this box is unchecked.

The easiest way to apply your own color settings from within a full screen 3D application is to create a Full Screen 3D profile and save it, assign hotkeys for the “Load Current Profile” action through the Hotkeys dialog, make sure that the profile you prefer is selected from the drop-down list box, and click **OK**. Once inside the 3D application, use the hotkeys to trigger the profile.

ATI Options Tab

The ATI Options tab provides detailed driver information and access to your graphics card’s versioning and specifications. You can also enable or disable the ATI taskbar icon from this dialog.



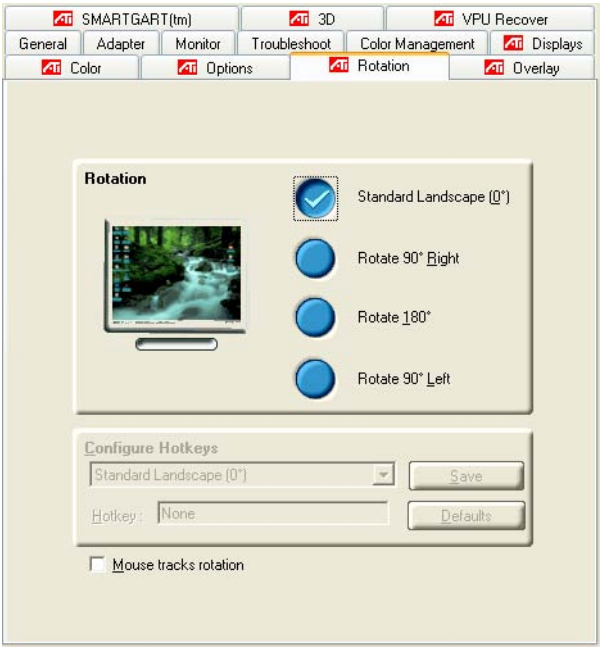
ATI Options Tab

ATI Options Tab	
Version Information	Shows the Catalyst version number, 2D version number, and the driver build information.
Details button	Gives access to the Details tab, which lists the card's hardware details and driver information.
Reactivate all warning messages	Reactivates any disabled graphics warning messages.
Enable ATI taskbar icon application	Enables/disables the ATI taskbar applications and removes the ATI icon from your system tray.
Show ATI icon on taskbar	Removes/replaces the ATI icon from the system tray without disabling the ATI icon applications.
Disable quick resolution feature	The quick resolution feature is accessible by left-clicking the ATI icon in the system tray. Checking this option disables this feature.

ATI Options Tab	
Reduce DVI frequency on high-resolution	Resolves display corruption or no image at high resolutions (for example 1280x1024 @75Hz) using a digital DVI display. This setting has no effect when using a DVI-I-to-VGA adapter.
Alternate DVI operational mode	Use this option if you are experiencing display corruption on your DVI flat panel.

ATI Rotation Tab

Use the Rotation tab to rotate the image on your display up to 180 degrees. This feature is useful when using a flat panel display that can be physically rotated to different positions.



ATI Rotation Tab

ATI Rotation Tab	
Rotation buttons	Rotates the display by the preset amount.
Configure Hotkeys drop-down list	Lists the rotation actions with which you can associate a hotkey.
Hotkey field	Associates a hotkey with a rotation. To input the hotkey, click on the field and press the appropriate key combination on your keyboard.
Save button	Saves a hotkey setting.
Defaults	Restores the default hotkey settings.
Mouse tracks rotation checkbox	When selected, rotates the mouse pointer to match the display image settings. When deselected, the mouse pointer will move relative to the Standard Landscape view regardless of display rotation.

To rotate a single display

1. Select one of the four rotation settings by clicking the appropriate button.
2. Optionally, check the **Mouse Track Rotation** checkbox to have the mouse pointer match the display image.
3. Click **OK** or **Apply**.

To rotate multiple displays

1. Select the **Settings** tab in the Windows® **Display Properties** dialog.
2. Select the display to which you want to apply the rotation.
3. Click the **Advanced** button and select the **Rotation** tab.
4. Select one of the four rotation settings by clicking the appropriate button.
5. Optionally, check the **Mouse Track Rotation** checkbox to have the mouse pointer match the display image.
6. Click **OK** or **Apply**.

Rotation HotKeys

Hotkeys can be assigned to quickly rotate the image on your display without having to access the Windows® Display Properties dialog.

To assign rotation hotkeys

1. Choose the required rotation setting from the **Configure HotKeys** drop-down list.
2. Click on the **HotKey** field and press the appropriate key combination on your keyboard.
3. Click **Save**.

Note: When assigning hotkeys, be careful that the key combinations you choose do not conflict with those of other applications in which you might want to use them. The ATI Rotation page only checks for duplications within the Rotation page itself, insofar as it allows a hotkey combination to be assigned only once.

ATI Overlay Tab

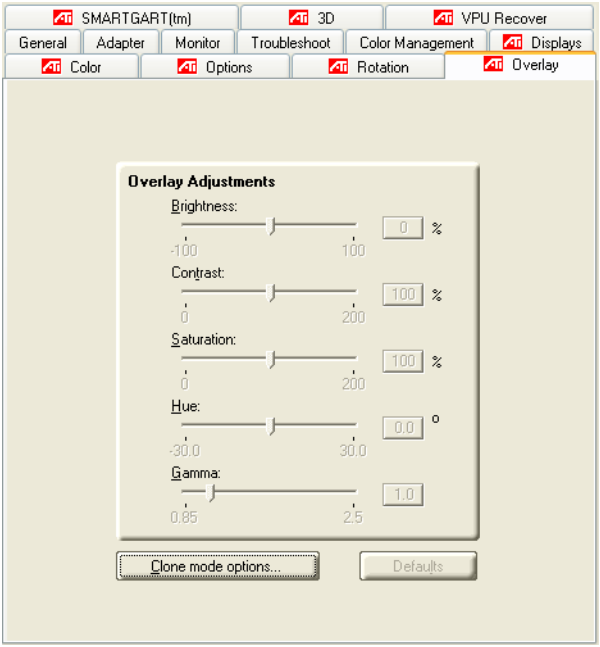
The ATI Overlay tab allows you to configure the brightness, contrast, saturation, hue, and gamma properties of your video overlay.

Video Overlay

Video overlay allows for the viewing of streaming video on your PC. However, there is only one video overlay, which is only available on the **Primary** display**.** The video overlay controls are automatically activated during playback of any video file type that supports overlay adjustments.

Move the sliders to the right to increase the values of the various options, and to the left to decrease them.

Click the **Defaults** button to reset the values to their default settings.



ATI Overlay Tab

ATI Overlay Tab	
Brightness	Adjusts the brightness of the video image.
Contrast	Adjusts the contrast in the video image.
Saturation	Adjusts the vividness of the color. Sliding it all the way to the left removes all color and produces a black and white picture.
Hue	Adjusts the pureness or tint of the red, green, and blue components of the color.
Gamma	Adjusts the overall intensity of the video image.
Clone mode options	Accesses **Clone Mode** overlay settings.These settings only apply to video content when viewed in dual-controller Clone mode. For more information, see the Clone Mode Settings section.
Defaults button	Resets the Overlay settings to default values.

ATI Overlay Tab	
Theater Mode	Displays video playback in full screen on a secondary monitor, if available and enabled.

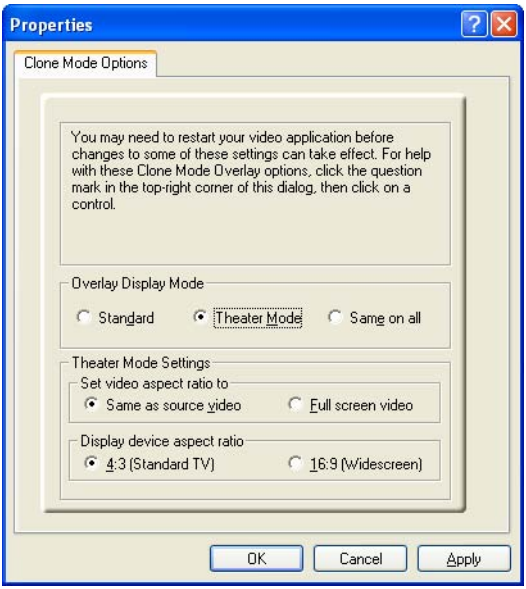
Clone Mode Settings

Clone Mode Options are available under the following conditions:

- Your ATI graphics accelerator has dual controllers to support Primary and Secondary (Clone) displays.
- Your ATI video adapter has dual display functionality by providing a standard VGA connector and a digital flat panel connector such as the DVI-I connector.

In either of these cases, you can access Clone Mode Options if more than one display is connected.

Note: These settings apply to video content viewed when you are in dual-controller Clone mode, and not single-display or extended desktop configurations.

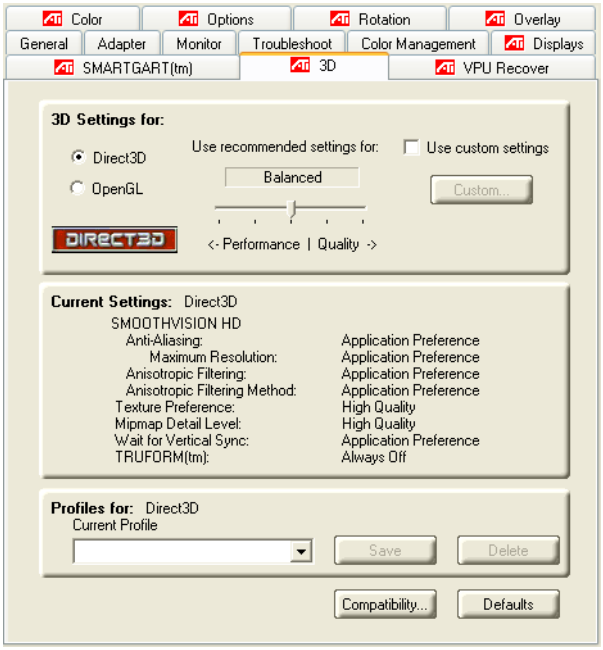


Clone Mode Options tab

Clone Mode Options	
Standard	Video content is displayed on your Primary display *only.*
Theater Mode	Video content is displayed on your Primary and Secondary displays. Video content is displayed on your Secondary display(s) is always in full screen mode. Note: your computer must be set for 16-bit color depth or higher to use this mode.
Same on all	Video content is displayed on your Primary and Secondary display in exactly the same manner. For example, all displays will show video output in full screen mode.
Theater Mode Settings	These settings are available when **Theater Mode** is selected.
Same as source video	The aspect ratio of the source video is maintained for full screen display. Note: that this option may result in black bars on either the horizontal or vertical sides of the video display.
Full Screen Video	The source video is scaled so that your display is showing full screen. Note: if the source video contains horizontal black bars, as do some DVD movies, the full screen video will also contain black bars.
4:3 (Standard TV)	Select this option if the aspect ratio of the display device showing full screen video has the standard 4:3 aspect ratio (standard TVs and monitors).
16:9 (Widescreen)	Select this option if the aspect ratio of the display device is showing full screen video has a 16:9 aspect ratio (widescreen HDTVs).

ATI 3D Tab

This tab allows you to fine-tune settings for both Direct 3D® and OpenGL® applications. It displays existing settings and allows you to create unique application profiles.

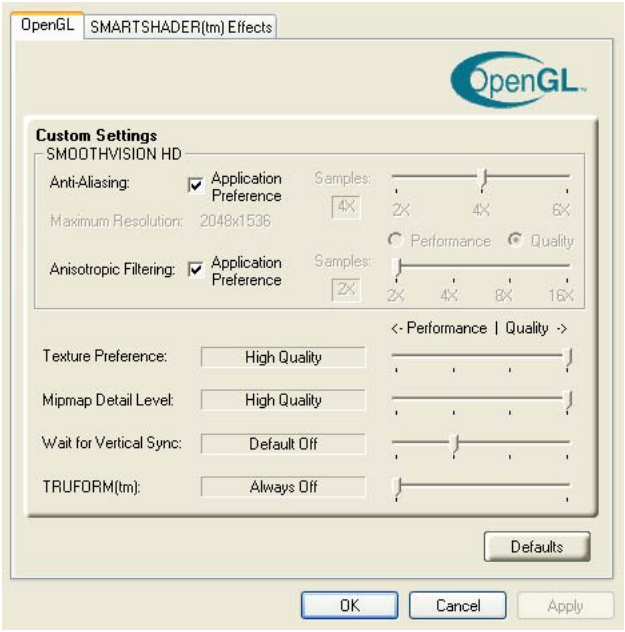


ATI 3D Tab

ATI 3D Tab	
3D Settings for radio buttons	Selects either Direct 3D® or OpenGL® as the format to be altered in the workspace.
Performance/Quality slider	Controls the overall performance/image quality of your graphic application. Moving the slider to the left will maximize application performance, while moving the slider to the right will maximize image quality.
Use Custom Settings checkbox	When **Use Custom Settings** is checked, the Performance/Quality slider is disabled and the **Custom** button is enabled. Using custom settings is recommended for advanced users only.
Custom button	Opens the Custom Properties dialog. Using custom settings is recommended for advanced users only. For more information, refer to the Custom Properties Dialog section.

ATI 3D Tab	
Current Settings	Shows the current settings for either Direct 3D® or OpenGL®, whichever is selected.
Profiles for	Allows you to save a unique profile of the custom settings you have selected. Once you have completed making your custom settings, click **OK** in the Custom Properties dialog. Enter a name in Current Profile and click the **Save** button. Saved profiles are selected from the Current Profile drop-down window. To delete a profile, select it from the **Current Profile** drop-down window and press the **Delete** button.
Compatibility Settings button	Accesses advanced settings that may solve compatibility issues for a few specific Direct 3D® or OpenGL® applications, whichever is selected. For more information, refer to the Compatibility Dialog section.
Defaults	Resets to the dialog's default values.

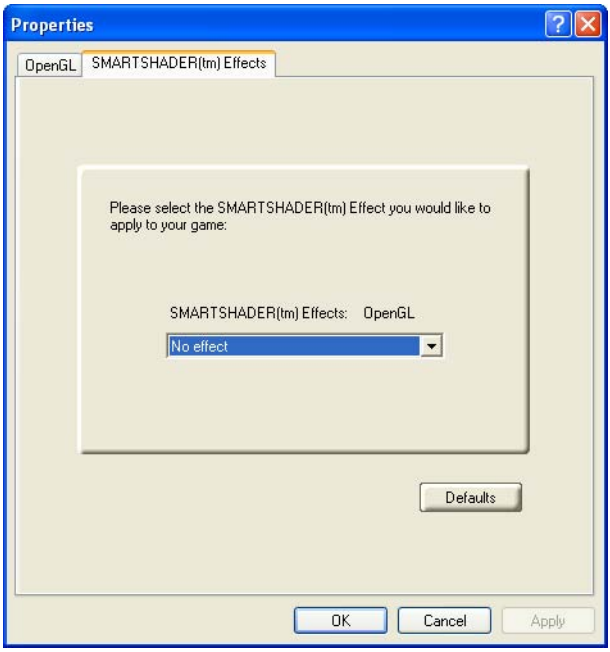
Custom Properties Dialog



Custom Properties Dialog

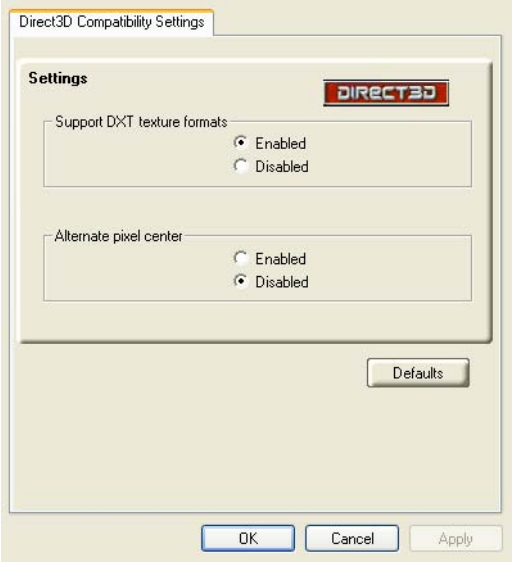
Custom Properties Dialog: OpenGL® or Direct 3D®	
SMOOTHVISION™ HD Anti-Aliasing slider	SMOOTHVISION™ (Anti-Aliasing) improves image quality by removing jagged edges from 3D images, resulting in smoother, more natural-looking objects. Anti-Aliasing can be applied using different sample patterns and sample points such as 2X or 4X. Moving this slider to the right increases sampling to provide the most realistic 3D image. Select the **Application Preference** checkbox for high-quality images, with a negligible reduction in the application's performance. Deselect the **Application Preference** checkbox to customize the anti-aliasing.

Custom Properties Dialog: OpenGL® or Direct 3D®	
SMOOTHVISION™ HD Anisotropic Filtering slider	Anisotropic filtering uses a texture filtering technique that blends multiple texture samples together. The number of samples taken when anisotropic filtering is performed can vary. By moving this slider to the right, as the number of samples taken increases, the quality of the final image increases significantly. 16X provides extremely detailed, crisp-looking images as a result of the largest number of texture samples possible. Selecting the **Application Preference** checkbox will result in high-quality images, with a negligible reduction in the application's performance. Select the **Application Preference** checkbox for high-quality images, with a negligible reduction in the application's performance. Deselect the **Application Preference** checkbox to customize the anisotropic filtering.
Texture Preference slider	Choose between high quality or high performance textures for your application. Moving the slider to the right delivers the highest quality experience. Moving the slider to the left emphasizes a high-performance solution while still providing good visuals.
Mipmap Detail Level slider	Choose the texture quality of the mipmaps the application will use. Mipmaps are a collection of different sized textures of the same image. As the user moves closer to a 3D object the image quality should increase, requiring a higher quality texture of the same image. The base mipmap is the highest quality texture, and all subsequent mipmaps are smaller sized textures of the same image. Moving the slider to the right selects a higher quality base mipmap, delivering the highest quality application experience. Moving the slider to the left selects a lower quality mipmap, delivering the highest application performance.
Wait for Vertical sync slider	Controls whether the Vertical sync is always on, always off, or controlled by the application.
TRUFORM™ slider	TRUFORM™ is a technology developed by ATI that enables higher-order surface rendering through traditional triangle rendering APIs. It improves the sillouhettes and lighting of objects.



Custom Properties Dialog: SMARTSHADER™ Effects	
SMARTSHADER™ Effects drop-down list	SMARTSHADER™ applies preset pixel effects on OpenGL® or Direct 3D® applications. Choose the desired effect and click **OK**.
Defaults button	Restores the default settings.

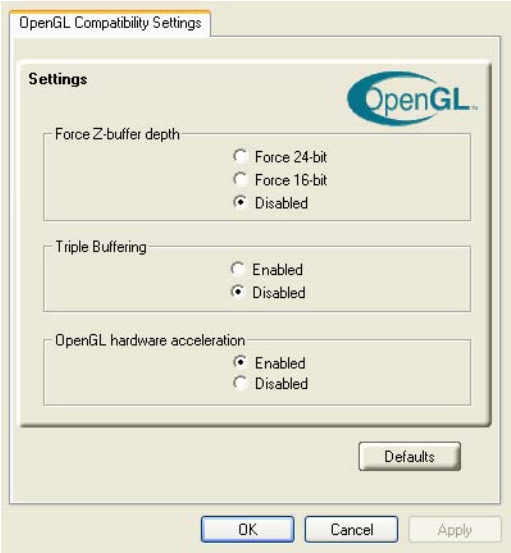
Direct 3D® Compatibility Settings



Direct 3D® Compatibility Settings Dialog

Direct 3D® Compatibility Settings	
Support DXT texture formats	There are a few applications that can only support a limited number of texture formats. By selecting Disabled, the driver will not support DXT texture formats, thus reducing the number of texture formats supported.
Alternate pixel center	May eliminate problems with some Direct 3D® games which display vertical and horizontal lines around textures, or text that appears incorrect. However, this setting should only be used if you are experiencing the symptoms mentioned, as it may cause problems with other games.
Defaults button	Resets to the dialog's default values.

OpenGL® Compatibility Settings

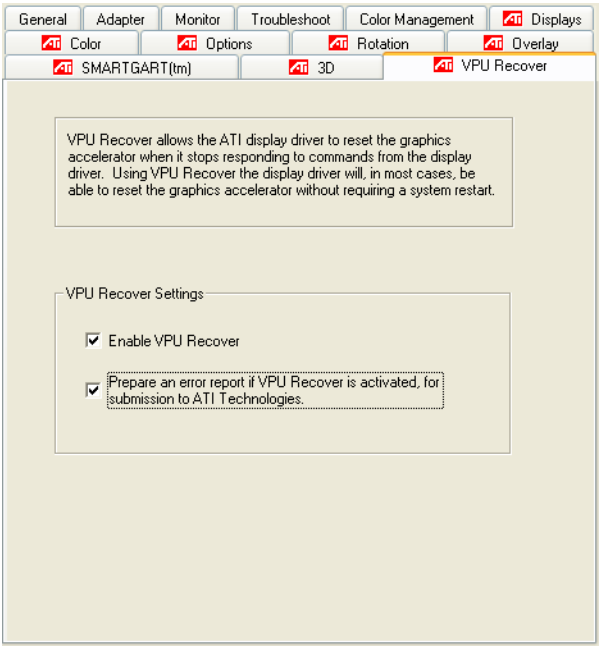


OpenGL® Compatibility Settings Dialog

OpenGL® Compatibility Settings	
Force Z-buffer depth	Explicitly set the Z-Buffer depth. Most applications will work best when **Disabled** is selected
Triple Buffering	Improves the frame rate of games when **Wait for Vertical Sync** is enabled in Custom Settings. Enabling **Triple Buffering** may decrease application performance as there will be less frame-buffer memory available. If there is insufficient memory available to support this feature it will be automatically disabled. It is recommended that this feature remain disabled.
Defaults button	Resets to the dialog's default values.
OpenGL® hardware acceleration	This feature should only be disabled if you are experiencing serious rendering problems. Disabling this feature will significantly decrease OpenGL® performance.

ATI VPU Recover Tab

Hardware crashes may occur when a hardware device and the corresponding software device driver are no longer able to communicate with each other. VPU Recover enables the ATI display driver to detect when the graphics card is no longer able to respond to display driver commands. When this situation arises, the display driver will reset the graphics card. Depending on the current state of the system when VPU Recover is activated, applications that are running may be able to fully recover from this reset. In other cases, running applications may be closed, and the user will be returned to the Windows® desktop.



ATI VPU Recover Tab

ATI VPU Recover Tab	
Enable VPU Recover checkbox	Enables VPU Recover.

ATI VPU Recover Tab	
Prepare an Error Report checkbox	When VPU Recover is activated a dialog will prompt you to submit an automatically generated error report to ATI. This error report will help ATI to determine the cause of the problem and help create more stable drivers. To disable this feature, deselect the **Prepare an Error Report** checkbox.

CHAPTER 5:

Using TV Display and Capture Features

Using TV Out

Your ALL-IN-WONDER® X600 Series has TV Out capability. As an option, it also supports YPbPr component video output.

Viewing Your PC's Display on a TV

You can attach your graphics card to a TV and monitor at the same time. You can also connect it to your VCR and record your monitor's display.

IMPORTANT INFORMATION for European Customers
Some PC monitors in Europe **cannot** be used simultaneously with TV display. When you enable TV display in Europe, the refresh rate for the monitor and TV is set to 50 Hz. Some monitors may not support this refresh rate **and could be damaged**.

- Please check the documentation supplied with your monitor to see if your monitor supports a refresh rate of 50 Hz.
- If your monitor does not support 50 Hz (or if you are not sure), turn off your monitor before turning on your PC when using your TV as a display.

TV display is ideal for giving presentations and watching movies, or playing games on a screen larger than a typical monitor. The following tips will help you get the most out of your TV Out feature.

Connecting to a TV or VCR

To connect your ALL-IN-WONDER® X600 Series card to a TV or VCR, use an S-Video cable. Many TVs (and VCRs) have a Composite video input, in which case you can use the supplied S-Video-to-Composite video adapter. If your TV has cable input only, you can connect your graphics card to your TV through your VCR or an RF modulator that is available from most electronics stores.

Starting Windows® with TV Display Enabled

The TV screen may become scrambled during the initial Windows® logo display. This distortion is only a temporary effect, and your screen will be restored within a few seconds.

During start up, your ALL-IN-WONDER® X600 Series will go through a sequence of mode settings, during which your TV display will remain blank. This process takes only a few seconds and programs the TV display.

To enable or disable the TV display

1. Access the Windows® **Control Panel**. Double-click **Display**.
2. Click the **Settings** tab and then the **Advanced** button.
3. Click the **ATI Displays** tab. Click the **TV** button.
4. Click the enable button or disable button accordingly.
5. Click **OK** or **Apply** to save the changes.

Using and Adjusting TV Display Features

For information about how to adjust TV display features, right-click the **ATI taskbar icon**, point to **Help**, then point to **ATI Television Display**.

TV Display Hardware Restrictions

A TV cannot be left connected to the graphics card if two analog monitors are connected to your ALL-IN-WONDER® X600 Series card, even if the TV is off and not enabled in the software.

Similarly, an analog monitor connected to the DVI-I connector should not be left connected to your ALL-IN-WONDER® X600 Series card when TV Out is enabled. In both cases, your ALL-IN-WONDER® X600 Series will become overloaded, resulting in a dim image on all devices.

Using a Monitor vs. Using TV Display

Using your TV for your computer's display can be useful, however, the display on your monitor may change or looked squashed. This distortion occurs because the display adjusts to fit the dimensions of your TV. To correct the monitor's display, use the monitor's control buttons to adjust its display size and position.

Some single-frequency monitors may not work with TV display enabled. If you experience problems when TV display is enabled, disable TV display to restore your monitor's display.

Adjusting Monitor Display

The size of the display on your monitor may become smaller and not perfectly centered when you have TV display enabled. These effects are caused by the changes required to provide a proper display on the TV.

Use the controls available on the **Adjustments** tab on the **Monitor Properties** page (accessible by clicking on the **Monitor** button on the ATI Displays tab) to adjust the display on your monitor only. Click the **TV** button to adjust the TV display only.

Viewing Text on a TV

A TV is designed primarily to show moving images. The large dot pitch of a TV will yield poor quality static images. The small text sizes commonly used for PC desktops can appear blurred or unclear on a TV. You can compensate for this degradation by using larger fonts.

Switching to a larger display font

1. Access the Display Properties dialog by right-clicking on the desktop or navigating through Windows® **Control Panel**.
2. Click the **Settings** tab, the **Advanced** button, and then the **General** tab.
3. In the **Display** section, select **Large (120 DPI)** from the **Font Size** (or **DPI Setting**) drop-down list.
4. Click **Apply**. If prompted, click **Yes** to restart your Computer.

Reducing Edge Distortion

When using a TV for your computer's display, you may see some edge distortion on the left and right side of your TV screen. This effect depends on your TV and the computer application you are running.

You can reduce edge distortion by increasing the TV display's horizontal size or contrast.

Increasing the horizontal size of a TV display

1. Access the Display Properties dialog by right-clicking on the desktop or navigating through Windows® **Control Panel**.
2. Click on the **Settings** tab and then the **Advanced** button.
3. Click on the **ATI Displays** tab.
4. Click on the **TV** button.
5. Click the **Adjustments** tab.
6. In the **Screen Size** section**,** click on the plus (+) button beside the horizontal arrowheads to increase the horizontal size of the TV display.

7 Click **OK** or **Apply** to save the changes you have made.

You can also reduce edge distortion by increasing the TV's contrast.

Increasing the contrast of a TV display

1 Access the Display Properties dialog by right-clicking on the desktop or navigating through Windows® **Control Panel**.

2 Click on the **Settings** tab and then the **Advanced** button.

3 Click on the **ATI Displays** tab.

4 Click on the **TV** button.

5 Drag the **Contrast** slider to the right to increase the contrast.

6 Click **OK** or **Apply** to save the changes you have made.

Using TV Display Alone

If you plan to move your computer to a place where you are using TV display only, make sure that you have the TV display feature enabled prior to removing the monitor.

The maximum display resolution for TV is 1024x768. Choosing a resolution higher than this will cause the TV display to disappear if it is the only display device.

Using Games and Applications

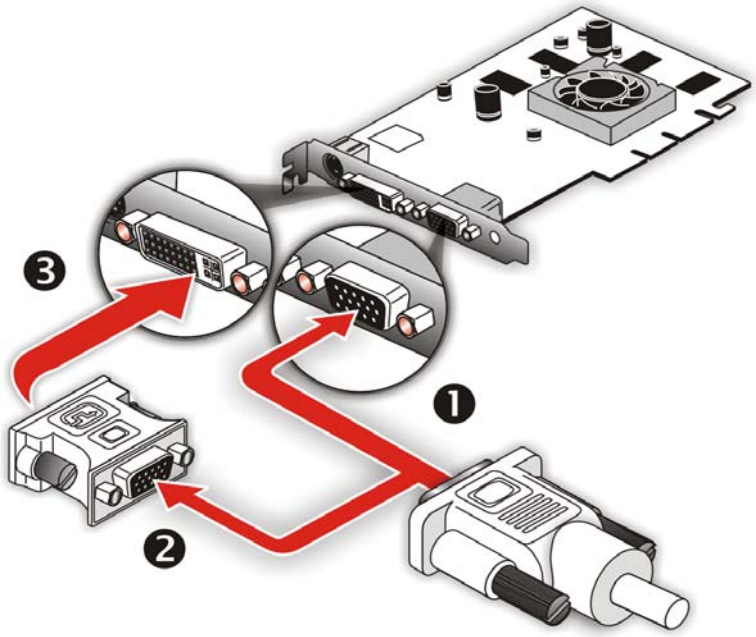
Some older games and applications may program your ALL-IN-WONDER® X600 Series directly to run under a specific display mode. This may cause your TV display to turn off automatically or become scrambled (the PC monitor will not be affected). Your TV display will be restored once you exit the game or if you restart your computer.

CHAPTER 6:

Using Multiple Displays

Connecting Your Monitors

Your ALL-IN-WONDER® X600 Series provides hardware support for one DVI-I monitor or two VGA monitors using the optional DVI-I-to-VGA adapter. A TV can also be used to expand your desktop by using the S-Video out.



Connections and Adapters for the ALL-IN-WONDER® X600 Series Card

❶	**Standard VGA Monitor Connector.** To connect a VGA monitor to the DVI-I connector, plug the supplied DVI-I-to-VGA adapter into the DVI-I connector, then plug your monitor cable into the adapter.
❷	Optional DVI-I-to-VGA Adapter.

Connections and Adapters for the ALL-IN-WONDER® X600 Series Card

❸	**DVI-I Backplate Connection.** To connect a flat panel, plug the monitor's DVI-I connector into the DVI-I connection.

Note: If you use multiple monitors, the ALL-IN-WONDER® X600 Series card must be the primary graphics card. Normally, the system BIOS determines which graphics card will be the primary.

To connect your monitors

1. **Turn off** your computer and monitors.
2. **Plug** the monitor cables into their appropriate connectors.
3. **Turn on** your monitors first, and then restart your computer so that Windows® can detect the new hardware settings.
4. When the **New Hardware Found** Wizard appears, at the appropriate prompt insert the ATI Installation CD to load the drivers for your ALL-IN-WONDER® X600 Series card.

To set up a multi-monitor display

1. From the **Start menu** click **Control Panel**, then **Display**. Click the **Settings** tab to access the basic multi-monitor configuration settings.

   Note: ATI software provides many additional configuration features that can be accessed by clicking the **Advanced** button from the **Display Properties > Settings** tab.

2. Select the **Monitor** icon identified by the number **2**.
3. Click **Extend my Windows desktop onto this monitor**.
4. Set the **Screen Resolution** and **Color Quality** as appropriate for the second monitor. Click **Apply** or **OK** to apply these new values.
   - Refer to your Windows online help and documentation for further information on using the **Settings** tab.

   Note: When you use multiple monitors with your card, one monitor will always be **Primary**. Any additional monitors will be designated as **Secondary**.

Display Configurations

Your ALL-IN-WONDER® X600 Series graphics card provides dual display functionality and TV Out. The following table lists the different ways you can connect displays to your card.

Display Configuration	Connector(s) Used	Comments
Single CRT display	VGA connector OR DVI-I connector with DVI-I-to-VGA adapter	CRT- cathode ray tube analog display.
Single DFP display	DVI-I connector	DFP - digital flat panel display.
Single TV	S-Video Out	The S-Video out can also support a composite connection via the S-Video-to-Composite adapter.
Single HDTV display	HDTV Output Adapter	HDTV - High Definition Television
CRT display + TV	VGA connector + S-Video Out	UNSUPPORTED CONFIGURATION if the CRT display is attached to the DVI-I connector via the DVI-I-to-VGA adapter.
CRT display + HDTV	VGA connector + HDTV (YPrPb) output cable	
DFP display + TV	DVI-I connector + S-Video out	
DFP display + HDTV	DVI-I connector + S-Video Out to HDTV (YPrPb) cable	
CRT display + DFP display	VGA connector + DVI-I connector	
CRT display + CRT display	VGA connector + DVI-I connector with DVI-I-to-VGA adapter	The DVI-I connector can support a CRT display using the DVI-I-to-VGA adapter
CRT display + DFP display + TV	VGA connector + DVI-I connector + S-Video Out	The TV display will “clone” the image of one of the other two displays

Display Configuration	Connector(s) Used	Comments
CRT display + DFP display + HDTV	VGA connector + DVI-I connector + HDTV (YPrPb) output cable	UNSUPPORTED CONFIGURATION
CRT display + CRT display + TV	VGA connector + DVI-I connector with DVI-I-to-VGA adapter + S-Video Out	UNSUPPORTED CONFIGURATION
CRT display + CRT display + HDTV	VGA connector + DVI-I connector with DVI-I-to-VGA adapter + S-Video Out to HDTV (YPrPb) cable	UNSUPPORTED CONFIGURATION

MULTVIEW™

If you have an ALL-IN-WONDER® Series card and an ATI TV WONDER™ PCI card installed in the same system, MULTVIEW™ lets you watch a different channel in a secondary video window. You can record video from your ALL-IN-WONDER® while you watch another channel on the TV WONDER™. The secondary window can be in the following locations:

Picture in Picture (PiP). When the main video window is in full-screen, the MULTVIEW™ PiP video window is embedded in the main window. It can be positioned in the top/bottom left or top/bottom right of the main window.

Picture outside Picture (PoP). If you use only one monitor, the main and MULTVIEW™ video windows can be displayed in separate windows. If you use dual monitors, you can drag the MULTVIEW™ window to the secondary monitor. MULTVIEW™ can be displayed in a window or full-screen in the secondary monitor.

The first time you start TV, the MULTVIEW™ Initialization Wizard will guide you through setting up the MULTVIEW™ window location and the MULTVIEW™ tuner audio connection.

MULTVIEW™ controls include channel up/down, Mute/unmute, audio, swap channel, volume slider, and channel status. When MULTVIEW™ is in focus, you can also type a channel number or name to change channels.

To enable MULTVIEW™

In the MULTVIEW Initialization Wizard, click **Enable MULTVIEW**.

To open and close MULTVIEW™

1. Right-click the control panel or the video panel.
2. In the Feature menu, click **MULTVIEW**, and then click **Show**.

   To close MULTVIEW™, click the Close button or right-click the control panel or the video panel, and in the Feature menu, click **MULTVIEW**, and then click **Show**.

To change the location of the MULTVIEW™ window

When the main video window is in full screen, right-click the control panel or the video panel, click **MULTVIEW**, click **Location**, and then click the position you want: Top-Left, Top-Right, Bottom-Right, or Bottom-Left.

You can manually change the embedded window's size and location when the MULTVIEW™ borders are visible.

Autohiding MULTVIEW™ window controls and borders

The MULTVIEW™ window borders disappear after a few seconds of mouse inactivity on the MULTVIEW™ window. When you move your mouse over the MULTVIEW™ window, the border re-appears.

Only one video window can be can be in control. When the embedded MULTVIEW™ window is in focus, its borders are red; when it is not in focus, its borders are black. For example when the borders are red, a REMOTE WONDER™ channel-change command will change the MULTVIEW™ channel.

MULTVIEW™ audio requirements

If you have one audio card or an integrated audio chip, you must connect one audio path internally (CD-In, for example) and the other externally (Line-In, for example).

If you have two audio cards or one audio card and an integrated audio chip, you can connect both audio paths internally, externally, or one internally and the other externally.

EAZYLOOK™

Designed to work with the REMOTE WONDER™ (see *page 27*) in full-screen mode, EAZYLOOK™ displays large, on-screen information about remote control functions when you watch TV, DVD, or File Player. It also provides assistance when you use the Library or navigate in TV Listings.

CHAPTER 7:

Troubleshooting

The following troubleshooting tips may help if you experience problems. ATI's documentation contains helpful installation/configuration tips and other valuable feature information. Please contact your dealer for more advanced troubleshooting information.

More troubleshooting information can be found on the ATI Website at ati.com/support/.

Uninstalling Old Graphics Card Software

To ensure successful installation of your ALL-IN-WONDER® X600 Series card, you must uninstall the graphic drivers for the existing graphics card before removing it from your computer.

To uninstall old graphics drivers

1. With your current graphics card still in your computer, close all open applications.
2. Click **Start > Settings > Control Panel**, then select **Add/Remove Programs.**
3. Select your current graphic drivers, then click **Add/Remove**:
   - The Wizard will help you remove your current display drivers.
   - Restart your system after the drivers have been removed.

> ⓘ If the previously installed graphics card has any additional software installed, they may also need to be removed at this point. For example, DVD Player or Multimedia applications.

Windows® New Hardware Found

Windows may start the **Add New Hardware Wizard** to install the Standard VGA Driver.

To install and detect your new hardware

1. Click **Next** to allow Windows® to search for the Standard VGA or Standard PCI Graphics Adapter.
   If prompted for the Windows® *CD-ROM, insert it into your CD-ROM drive.*
2. Type the following: **D:\<Operating System name>** for example **D:\WinXP**.
   If **D** *is not your CD-ROM drive, substitute* **D** *with the correct drive letter.*
3. Click **OK**.
4. Click **Finish** to close the Wizard and then restart your system.

Installing the CATALYST™ Software Suite

ATI's CATALYST™ software suite provides you with all you need to get the most out of your ATI Graphics Accelerator card. The CATALYST™ software suite comprises four, distinct software elements:

- Driver.
- Multimedia Center.
- HydraVision (not included in the *Express* Install).
- Remote Wonder Software.

To ensure you install supported software, use the ATI Installation CD-ROM that shipped with your ATI Graphics Accelerator card.

To install the CATALYST™ Software Suite

1. Insert the ATI INSTALLATION CD-ROM into your CD-ROM drive.
   If Windows® *runs the CD-ROM automatically, proceed to step 6.*
2. Click **Start**.
3. Select **Run**.
4. Type the following: **D:\ATISETUP**
   If **D** *is not your CD-ROM drive, substitute* **D** *with the correct drive letter.*
5. Click **OK**.
6. Click **Install** under Software Install**.**
7. Click **Next.**
8. Click **Yes** to the license agreement.

9 Click **ATI Easy Install** to begin the Installation Wizard.

10 Follow the Wizard's on-screen instructions to complete the installation.

Note: The Express installation option is recommended. If your ATI Graphics Accelerator card includes a multimedia component, the software for that component will automatically be installed, along with the ATI graphics driver. Not all software components are installed using the Express installation. Custom installation allows you to select individual software components for installation.

Solution Selector

General Problems	
Problem	**Possible Solution**
Computer Does Not Boot-Up Properly	• Verify that the installation instructions were properly followed. • Check that the card is properly installed in your system and connected to your monitor. • If you have problems during start-up, restart your computer in **Safe Mode**. While starting Windows® 2000 and Windows® XP, press and hold **F8** until you see the Windows® Advanced Options Menu. Use the arrow keys to select **Safe Mode**, and press **Enter**. • Check the system configuration utility of your operating system for the interrupt assignments. • Contact ATI's Customer Care or your local technical support.
No Display	• Check that the card is seated properly in its expansion slot. • Ensure that the monitor cable is securely fastened to the card. • Make sure that the monitor and computer are plugged in and receiving power. • If necessary, disable any built-in graphics capabilities on your mother board. For more information, consult your computer's manual or manufacturer. (Note: some manufacturers do not allow the built-in graphics to be disabled or to become the secondary display.) • Make sure that you selected the appropriate monitor when you installed your enhanced driver.

General Problems	
Problem	**Possible Solution**
Screen Defects Appear	• Check if your monitor supports the resolution, horizontal (kHz) and vertical (Hz) refresh rates as required by the graphics card. • Check your current resolution, refresh rate, and color depth settings in the **Settings** and **Monitor** tabs in your **Display Properties** dialog. **Warning!** Ensure that both video card and monitor support resolution and refresh rates you select. Incompatible resolution/refresh rate selection may result in monitor damage. Refer to your monitor's documentation for recommended resolutions and refresh rates.
Off-Center Screen Image, Odd Colors or No Picture	• Try adjusting the brightness, sharpness, contrast, and color balance controls of your monitor. • Try adjusting the centering and positioning controls of your monitor to position the picture on the screen. **Note:** The **Screen Position** settings in **Display Properties > Advanced > Displays > Adjustments** tune the position of the picture on the screen via the video signal. • Set the monitor's RGB inputs (and sync switches, if this option is available) to 75 Ohms, with the sync set to external. • Digital Flat Panel (DFP) monitor users: refer to your monitor's documentation for the appropriate cable and connector to plug into the DVI-I connector on the graphics card.
Operating System Warns that Video Card Isn't Properly Configured	• Check the driver installation and make sure that all software is correctly loaded corresponding to your operating system and applications. • Re-install the ATI drivers for your ALL-IN-WONDER® X600 Series card.

HDTV/HDTV Adapter Troubleshooting	
Problem	**Possible Solution**
The colors on my TV display are incorrect	• Ensure that the connections between the Component Video Adapter and your HDTV are correct (Y=Green, Pb=Blue, Pr=Red).
There is no display on my TV	• Your TV will not display anything until Windows starts; this may take several minutes. • Set your TV to YPbPr input. • Ensure that the HDTV Component Video Adapter is properly connected, then restart your computer.
DVDs will not play in 720p or 1080i modes	• Copy-protected DVDs restrict playback to 480i and 480p modes.
I can't see the entire display	• If your component input device supports it, try 720p mode.
The display appears tilted	• Consult your HDTV user's manual.
My CRT display is green	• Your system is in component output mode. Restart your computer with the CRT monitor connected.

Audio Troubleshooting	
Problem	**Possible Solution**
No Sound	• If you have external speakers, ensure that they are powered-on (POWER indicator light is on) and connected to the LINE-OUT or SPEAKER OUT connectors on your sound card. • Connect the Line-In connector to your sound card **first**.
Still No Sound?	1. Click **Start**, point at **Settings**, select **Control Panel**, and then double-click **Sounds**. 2. In the **Events** area, Click **Asterisk**, and then click a WAV file in the **Sound** area. 3. Click the Play button to preview the sound. If you still do not hear any sound, open the Volume Control: Click **Start**, point at **Programs**, point at **Accessories**, point at **Entertainment**, and then select **Volume Control**. Or, right-click the speaker icon (usually in the lower-right corner of your screen), and then click **Open Volume Controls**. • If the speaker icon is not in your Taskbar, do the following: In the Windows Taskbar, click **Start**, point to **Settings**, click **Control Panel**, then double-click **Multimedia**. In the **Audio** tab, check **Show volume control on the Taskbar**. • Ensure that the Volume Control and the Wave channel are not muted or set very low. • When you hear sound from your speakers, you know they are working. • If you still experience audio problems, check the audio connections to your ALL-IN-WONDER™ card.
No Sound from TV	• Ensure that the audio connection between your ALL-IN-WONDER card and your sound card is correct. For instructions, see *Input and Output Adapters on page 14.*

Audio Troubleshooting	
Problem	**Possible Solution**
Can't Record Sound	1. Click **Start**, point at **Programs**, point at **Accessories**, point at **Entertainment**, and then select **Volume Control**. Or, right-click the speaker icon (usually in the lower-right corner of your screen), then click **Open Volume Controls**. 2. In the **Volume Control** menu, click **Options**, click **Properties**, click **Recording**, and then click **OK**. The **Recording Control** opens. 3. Ensure that **Line** (or the Audio input you selected in the *TV Sound Initialization Wizard*) is checked, and then close the dialog.
Can't record sound when recording from a videotape	• Left and right audio output from your VCR must be connected to your ALL-IN-WONDER® X600 Series card (note that S-Video does not provide an audio connection). For instructions, see *Input and Output Adapters on page 14.*
No sound on the videotape when outputting to a VCR	• Left and right audio output from your VCR must be connected to your ALL-IN-WONDER® X600 Series card (note that S-Video does not provide an audio connection). For instructions, see *Input and Output Adapters on page 14.*

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